

What is claimed is:

1. An optical fiber connecting device for connecting uncoated fiber elements of a pair of optical fibers with each other in an abutment condition, comprising a body, a fiber-element securing member supported on said body to be operable between a closed position for securely holding an uncoated fiber element of an optical fiber and an opened position for releasing the uncoated fiber element, an actuating member supported on said body to operate said fiber-element securing member from said opened position to said closed position, and a sheath holding mechanism capable of holding a sheath portion of the optical fiber, in a fixed state relative to said body, with the uncoated fiber element thereof being securely held by said fiber-element securing member, characterized in that:

said sheath holding mechanism includes an elastically deformable holding element provided in said actuating member; and that

- 15 said holding element defines in said body a passage for guiding an optical fiber, and is elastically deformed due to a motion of said actuating member on said body for operating said fiber-element securing member toward said closed position, to press and hold a sheath portion of the optical fiber in said passage by an elastic restoring force of the holding element.

- 20 2. An optical fiber connecting device according to claim 1, wherein said holding element includes an elastic arm formed in said actuating member, said elastic arm including a fixed end part and a pressing part spaced away from said fixed end part for pressing the sheath portion of the optical fiber by an elastic restoring force of said elastic arm.

- 25 3. An optical fiber connecting device according to claim 2, wherein said elastic arm further includes an engaging part positioned between said fixed end part and said pressing part, said engaging part defining a constricted region in said passage for permitting an uncoated fiber element of the optical fiber to pass therethrough but for preventing the sheath portion of the optical fiber from passing therethrough.

4. An optical fiber connecting device according to claim 3, wherein said engaging part of said elastic arm opens said constricted region in said passage as the elastic arm is elastically deformed due to the motion of said actuating member on said body.

5 5. An optical fiber connecting device according to any one of claims 2 to 4, wherein said body includes an inlet port opening in an outer surface of said body and communicated with said passage, said pressing part of said elastic arm being arranged close to said inlet port.

10 6. An optical fiber connecting device according to any one of claims 1 to 5, wherein said holding element is integrally formed on said actuating member.

15 7. An optical fiber connecting device for connecting uncoated fiber elements of a pair of optical fibers with each other in an abutment condition, comprising a fiber-element securing member for securing an uncoated fiber element of an optical fiber, and a sheath holding mechanism capable of holding a sheath portion of the optical fiber, in a fixed state, with the uncoated fiber element thereof being secured by said fiber-element securing member, characterized in that:

said sheath holding mechanism includes a holding element elastically deformable independently from said fiber-element securing member; and that

20 20 said holding element defines a passage for guiding an optical fiber outside of said fiber-element securing member, and presses and holds a sheath portion of the optical fiber in said passage by an elastic restoring force of the holding element.